

Application Serial No. 09/867,434
Reply to Office Action dated August 24, 2005

REMARKS/ARGUMENTS

On page 2 of the Office Action, the Examiner outlines a rejection to claims 16-26 as being unpatentable over Plante (U.S. Patent No. 4,842,742) in view of Denmark (GB 1521037). This rejection is respectfully traversed. In general, the present invention is directed to a method of creating a substantial uniform temperature across a plastic sheet for delivery to an appliance liner thermoforming device. In accordance with claim 16, a sheet of plastic material is extruded, arranged in a stack of similarly extruded sheets, allowed to cool, and then transferred to a temperature control unit. Once in the temperature control unit, a temperature controlled fluid medium is directed onto opposing side surfaces of the sheet to establish a substantially uniform temperature across the sheet. Once the uniform temperature is established, the sheet is delivered from the temperature control unit to a thermoforming device for creating the appliance liner. That is, the present invention establishes a uniform temperature across the extruded sheet so as to ensure consistency between the thermoformed plastic refrigerator liners.

As further discussed in the application, when the sheets are placed in a stack, sheets at upper portions of the stack will cool at a rate higher than sheets that are located centrally within or at a bottom of the stack. Thus, when exposed to a thermoforming process, the sheets at the upper portion of the stack deform at a rate different from the sheets located at the center and lower portions of the stack, thereby creating problems in consistency between the plastic liners. Through the use of the present invention, each individual sheet is exposed to a temperature control unit such that each individual sheet is delivered at a uniform temperature to the thermoforming device. By maintaining a uniform temperature in each individual sheet, each liner can be consistently made.

In rejecting the claims of the present application, the Examiner initially relies upon the patent to Plante which is directed to a method of forming large objects, such as refrigerator liners, through a thermoforming process. As clearly evident from the background section of the present application, the Applicant has already admitted that thermoforming refrigerator liners is known in the art. Recognizing that Plante does not

Application Serial No. 09/867,434
Reply to Office Action dated August 24, 2005

teach the invention of directing a fluid medium onto opposing sides of a sheet that was previously arranged in a stack of similarly extruded sheets as claimed, the Examiner combines Plate with Denmark (GB 1521037) which is directed to improvements related to the manufacturing of thin walled, hollow plastic articles by thermoforming. It is respectfully submitted that the rejection of the claims based on Plante in view of Denmark is flawed for various reasons. First, Plante actually teaches away from the present invention. Second, one of ordinary skill in the art would not consider it obvious to modify Plante in view of Denmark as suggested in the outstanding Office Action. Third, even if the combination was made, the result would not be the invention claimed.

I. PLANTE TEACHES AWAY FROM THE PRESENT INVENTION

Initially, it is important to note that Plante specifically requires different portions of a billet to be heated different amounts in order to establish differential thicknesses in different portions of a refrigerator liner. As the entire invention covered by the present claims is concerned with creating a substantially uniform temperature across a plastic sheet for delivery to an appliance liner thermoforming device, Plante clearly teaches away from the present invention. Any attempt to modify Plante cannot avoid running afoul of this basic distinction.

II. MODIFYING PLANTE IN VIEW OF DENMARK IS NOT OBVIOUS

According to the Denmark specification, thin walled plastic material articles, such as "small domestic hollow-ware articles" (see page 1, lines 82-74), are thermoformed by initially heating a continuous sheet of plastic material through a process of jetting hot gas and/or steam from nozzles directly onto both sides of the sheet as the continuous sheet is directed vertically upwards. For example, the Examiner's attention is drawn to the disclosure concerning the continuous nature of the sheet on page 1, lines 60-65 and page 2, lines 33-35 in discussing the use of the invention in heating "plastics material webs." The vertical orientation is also discussed in various portions of the disclosure, such as on page 1, lines 72-84. The vertical orientation of the continuous sheet and the inclination

Application Serial No. 09/867,434
Reply to Office Action dated August 24, 2005

of fluid heating jets is important in connection with wiping off condensate which may collect on the sheet as set forth on page 2, lines 124+. Thus, in contrast to the present invention which is directed to uniformly heating discrete, plastic sheets taken from a stack of similar sheets that have cooled following an extrusion process in order to thermoformed consistent refrigerator liners, Denmark is concerned with directing a continuous, thin walled web of plastic upwards through an apparatus while being heated and wiped of condensate in order to make small domestic hollow-ware articles. It is respectfully submitted that one of ordinary skill in the art would not look to such a system to modify the Plante arrangement

As is widely known in case law and required throughout the M.P.E.P., claims of an application in question cannot be used as a blueprint or road map to combine prior art. The Examiner argues that, while the Plante reference does not teach directing a fluid medium onto opposing side portions of the sheet, these features are taught by Denmark. As stated above, Plante is concerned with individual sheets which are lifted from a stack and horizontally transferred through a heating device to specifically establish non-uniform temperatures across each of the sheets, while Denmark is concerned with establishing a more even temperature of a continuous web of plastic, presumably a rolled plastic web, which is vertically transported through a heating zone. Certainly, a reference must be used for what it teaches as a whole and the Examiner may not pick and choose between various portions of a reference only those portions needed to meet the claimed limitations. Simply stated, as a whole, Denmark is concerned with heating a continuous, vertically moving plastic material to form small domestic hollow-ware articles and would not suggest to one of ordinary skill in the art that the same heating process would be suitable for non-continuous sheets that are horizontally moved. In general, it appears to be the position of the Examiner that, simply because there exists prior art to thermoform a refrigerator liner in Plante that it would be obvious to utilize the device in Denmark to make appliance liners. As argued previously, one of ordinary skill in the art of making appliance liners would not look to Denmark which is clearly not designed to make appliance liners. Thus, the Applicant is at a loss to understand from where the Examiner is obtaining the motivation to combine these two references. Lacking any motivation in

Application Serial No. 09/867,434
Reply to Office Action dated August 24, 2005

the references themselves, the motivation must impermissibly stem from the application itself. The M.P.E.P. clearly prohibits the practice of using the application as the impetus to combine references. Simply stated, the sheets of Plante are like small plates or boards and one of ordinary skill in the art would not look to the vertically shifted, continuous web-type heating arrangement of Denmark for potential modifications.

III. PLANTE/DENMARK WOULD NOT RESULT IN CLAIMED INVENTION

Modifying Plante in view of Denmark would destroy the Plante arrangement. As indicated above, Plante teaches away from the present invention of creating a uniformly heated sheet or billet prior to thermoforming a refrigerator liner in that Plante mandates non-uniform heating. Denmark, on the other hand, employs controlled heating so that the continuous "sheet reaches and does not locally deviate from a preselected temperature" (see page 2, lines 5-10). Thus, modifying Plante in view of Denmark would destroy the non-uniform temperature gradient desired by Plante. For this additional reason, one of ordinary skill in the art would not find the combination obvious.


IV. ADDITIONAL CONSIDERATIONS

Finally, in the Office Action, the Examiner lists numerous features that are claimed and not taught by the applied prior art. The Examiner goes on to outline why each one of these features would be obvious without any teaching in the applied prior art. The Examiner appears to take official notices of "well known" prior art arrangements and holds various features to be "obvious matters of choice." It is respectfully submitted that, if certain features are so well known in the art, then prior art could be readily developed and used to establish a proper obviousness-type rejection. In addition, simply holding specifically claimed features as obvious matters of choice also does not establish a proper prima facie case of obviousness. Without proper support, it appears that the Examiner is simply using impermissible hindsight and reconstructing the present invention without relevant teachings in the prior art.

Application Serial No. 09/867,434
Rcply to Office Action dated August 24, 2005

Based on the above, although the Applicant is pleased to see the Denmark reference of record in this case, it is respectfully submitted that the present invention is in clear condition for allowance over the applied art such that allowance of the claims and passage of the application to issue are respectfully requested. If the Examiner should have any additional concerns regarding the allowance of the application, he is cordially invited to contact the undersigned at the number provided below to further expedite the prosecution.

Respectfully submitted,



Everett G. Diederiks, Jr.
Attorney for Applicant
Reg. No. 33,323

Date: November 23, 2005
DIEDERIKS & WHITELAW, PLC
12471 Dillingham Square, #301
Woodbridge, VA 22192
Tel: (703) 583-8300
Fax: (703) 583-8301